ATTACHMENT

LINE CAPACITIES REQUIRED FOR PROPOSED PSD DATA LINK

Requirements a and d. Line from OJCS to PSD General Printing Plant (GJ56) to provide tapes for COM and Xerox 1200

1. Total annual volume of 50 million computer pages – 45 lines per page, 133 characters per line.

2. 60 thousand pages per day (or 30% of the above volume) will require four hour turnaround.

3. Each page contains approximately 6,000 characters (45 lines x 133 characters).

4. Each character requires an 8 bit description. 8 bits x 6,000 characters = 48,000 bits per page. 48,000 bits x 60,000 pages = 2,880,000,000 bits to be transmitted in four hours. 2,880,000,000 ÷ 4 hours = 720,000,000 bits per hour. 720,000,000 ÷ 60 minutes = 12,000,000 bits per minute. 12,000,000 bits ÷ 60 seconds = 200,000 bits per second. Therefore, a 200K bits per second line will be required.

Requirements b and e. Line from OJCS to PSD Main Plant to provide an interactive MIS and text processing capability.

1. Hardware at PSD end of line would include one Hetra line printer and a card reader (600 lines per minute), one Delta Data CRT terminal and one hard copy terminal such as the IBM "2741".

2. Per information from OJCS, a 9,600 bits per second line would be required to realize maximum speed of this system.

STATSPEC

Requirement c. Line [   ] (Key Building) to PSD Main Plant to provide tapes for a high-speed typesetter.

1. Total daily volume of 180,000 words to be transmitted in no more than four hours.

2. 180,000 words x 5 characters per word = 900,000 characters per day.

3. Each character requires an 8 bit description. 8 bits x 900,000 characters = 7,200,000 bits to be transmitted in 4 hours. 7,200,000 bits ÷ 4 hours = 1,800,000 bits per hour. 1,800,000 ÷ 60 minutes = 30,000 bits per minute. 30,000 ÷ 60 seconds = 500 bits per second. Therefore, a 500 bit per second line will be required.